

CHAPTER 5A. GENERAL

Section 5A.01 Function

Support:

At some locations on low-volume roads, the use of traffic control devices might be needed to provide the road user limited, but essential, information regarding regulation, guidance, and warning.

Other Parts of this Manual contain criteria applicable to all low-volume roads; however, Part 5 specifically supplements and references the criteria for traffic control devices commonly used on low-volume roads.

Standard:

A low-volume road shall be defined for this Part of the Manual as follows:

- A. A low-volume road shall be a facility lying outside of built-up areas of Cities, towns, and communities, and it shall have a traffic volume of less than 400 AADT.**
- B. A low-volume road shall not be a freeway, expressway, interchange ramp, freeway service road, or a road on a designated State highway system. In terms of highway classification, it shall be a variation of a conventional road or a special purpose road as defined in Section 2A.01.**
- C. A low-volume road shall be classified as either paved or unpaved.**

Support:

Low-volume roads typically include farm-to-market, recreational, resource management and development, and local roads.

Guidance:

The needs of unfamiliar road users for occasional, recreational, and commercial transportation purposes should be considered.

Section 5A.02 Application

Support:

It is possible, in many cases, to provide essential information to road users on low-volume roads with a limited number of traffic control devices. The focus might be on devices that:

- A. Warn of conditions not normally encountered;
- B. Prohibit unsafe movements; or
- C. Provide minimal destination guidance.

As with other roads, the application of traffic control devices on low-volume roads is based on engineering judgment or studies.

Standard:

The criteria contained in Part 5 shall not prohibit the installation nor the full application of traffic control devices on a low-volume road where conditions justify their use.

Guidance:

Additional traffic control devices and criteria contained in other Parts of the Manual should be considered for use on low-volume roads.

Section 5A.03 Design

Standard:

Traffic control devices for use on low-volume roads shall be designed in accordance with the criteria contained in Part 5, and where required, in other applicable Parts of this Manual.

The typical sizes for signs installed on low-volume roads shall be as shown in Table 5A-1. The Minimum sign sizes shall only be used on low-volume roads where the 85th-percentile speed or posted speed limit is less than 60 km/h (35 mph).

All signs shall be retroreflective or illuminated to show the same shape and similar color both day and night, unless specifically stated otherwise in other applicable Parts of this Manual. The requirements for sign illumination shall not be considered to be satisfied by street, highway, or strobe lighting.

All markings shall be visible at night and shall be retroreflective unless ambient illumination provides adequate visibility of the markings.

Guidance:

Oversized sign sizes should be used where engineering judgment indicates a need based on high vehicle operating speeds, driver expectancy, traffic operations, or roadway conditions.

Table 5A-1. Minimum Sign Sizes on Low-Volume Roads(Sheet 1 of 2)

Sign	MUTCD Code	Section	Sign Sizes		
			Typical	Minimum	Oversized
Stop	R1-1	5B.02	750 x 750 (30 x 30)	—	900 x 900 (36 x 36)
Yield	R1-2	5B.02	750 x 750 x 750 (30 x 30 x 30)	—	900 x 900 x 900 (36 x 36 x 36)
Speed Limit (English)	R2-1	5B.03	600 x 750 (24 x 30)	450 x 600 (18 x 24)	900 x 1200 (36 x 48)
Speed Limit (Metric)	R2-1	5B.03	600 x 900 (24 x 36)	450 x 750 (18 x 30)	900 x 1350 (36 x 54)
Do Not Pass	R4-1	5B.04	600 x 750 (24 x 30)	450 x 600 (18 x 24)	900 x 1200 (36 x 48)
Pass With Care	R4-2	5B.04	600 x 750 (24 x 30)	450 x 600 (18 x 24)	900 x 1200 (36 x 48)
Keep Right	R4-7	5B.04	600 x 750 (24 x 30)	450 x 600 (18 x 24)	900 x 1200 (36 x 48)
Do Not Enter	R5-1	5B.04	750 x 750 (30 x 30)	—	900 x 900 (36 x 36)
No Trucks	R5-2	5B.04	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
One Way	R6-2	5B.04	450 x 600 (18 x 24)	—	600 x 750 (24 x 30)
No Parking	R8-3	5B.05	450 x 600 (18 x 24)	—	600 x 750 (24 x 30)
No Parking (symbol)	R8-3a	5B.05	600 x 600 (24 x 24)	450 x 450 (18 x 18)	750 x 750 (30 x 30)
No Parking (plaque)	R8-3c,3d	5B.05	600 x 450 (24 x 18)	450 x 300 (18 x 12)	750 x 600 (30 x 24)
Road Closed	R11-2	5B.04	1200 x 750 (48 x 30)	—	—
Road Closed, Local Traffic Only	R11-3a	5B.04	1500 x 750 (60 x 30)	—	—
Bridge Out, Local Traffic Only	R11-3b	5B.04	1500 x 750 (60 x 30)	—	—
Weight Limit	R12-1	5B.04	600 x 750 (24 x 30)	—	900 x 1200 (36 x 48)
Railroad Crossbuck	R15-1	5F.02	1200 x 225 (48 x 9)	—	—
Number of Tracks	R15-2	5F.02	675 x 450 (27 x 18)	—	—
Horizontal Alignment	W1-1,2,3,4,5	5C.02	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
One-Direction Large Arrow	W1-6	5C.02	900 x 450 (36 x 18)	—	1200 x 600 (48 x 24)
Two-Direction Large Arrow	W1-7	5C.02	900 x 450 (36 x 18)	—	1200 x 600 (48 x 24)
Chevron Alignment	W1-8	5C.02	300 x 450 (12 x 18)	—	450 x 600 (18 x 24)
Intersection Warning	W2-1,4,5	5C.03	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
Stop Ahead	W3-1	5C.04	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Yield Ahead	W3-2	5C.04	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Be Prepared to Stop	W3-4	5G.05	900 x 900 (36 x 36)	750 x 750 (30 x 30)	1200 x 1200 (48 x 48)
Narrow Bridge	W5-2	5C.05	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
One Lane Bridge	W5-3	5C.06	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Hill	W7-1,1a	5C.07	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
XX % Grade	W7-3	5C.07	600 x 450 (24 x 18)	—	750 x 600 (30 x 24)

Table 5A-1. Minimum Sign Sizes on Low-Volume Roads (Sheet 2 of 2)

Sign	MUTCD Code	Section	Sign Sizes		
			Typical	Minimum	Oversized
Next XX km (Miles)	W7-3a	5C.09	600 x 450 (24 x 18)	—	750 x 600 (30 x 24)
Pavement Ends	W8-3	5C.08	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Loose Gravel	W8-7	5G.05	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Railroad Advance Warning	W10-1	5F.03	600 Dia. (24 Dia.)	450 Dia. (18 Dia.)	750 Dia. (30 Dia.)
Crossing Warning	W10-2,3,4	5F.03	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Entering/Crossing	W11 Series	5C.09	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
Advisory Speed (plaque)	W13-1	5C.10	450 x 450 (18 x 18)	—	600 x 600 (24 x 24)
Dead End/No Outlet	W14-1,2	5C.11	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Dead End/No Outlet	W14-1a,2a	5C.11	900 x 225 (36 x 9)	600 x 150 (24 x 6)	—
No Passing Zone (pennant)	W14-3	5G.05	(750 x 1000 x 1000) (30 x 40 x 40)	(600 x 900 x 900) (24 x 36 x 36)	(900 x 1200 x 1200) (36 x 48 x 48)
Supplemental Distance (plaque)	W16-2	5C.09	600 x 450 (24 x 18)	450 x 300 (18 x 12)	750 x 600 (30 x 24)
Ahead (plaque)	W16-9p	5C.09	600 x 300 (24 x 12)	—	750 x 450 (30 x 18)
No Traffic Signs	W18-1	5C.12	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)
Road Work XX m (Ft)	W20-1	5G.05	900 x 900 (36 x 36)	750 x 750 (30 x 30)	1200 x 1200 (48 x 48)
Flagger	W20-7a	5G.05	900 x 900 (36 x 36)	750 x 750 (30 x 30)	1200 x 1200 (48 x 48)
Workers	W21-1a	5G.05	900 x 900 (36 x 36)	750 x 750 (30 x 30)	1200 x 1200 (48 x 48)
Fresh Oil	W21-2	5G.05	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
Road Machinery Ahead	W21-3	5G.05	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
Shoulder Work	W21-5	5G.05	600 x 600 (24 x 24)	—	750 x 750 (30 x 30)
Survey Crew	W21-6	5G.05	750 x 750 (30 x 30)	600 x 600 (24 x 24)	900 x 900 (36 x 36)

- Notes: 1. Larger signs may be used when appropriate
 2. Dimensions are shown in millimeters followed by inches in parentheses and are shown as width x height

Section 5A.04 Placement**Standard:**

The traffic control devices used on low-volume roads shall be placed and positioned in accordance with the criteria contained in Part 5 and, where necessary, in accordance with the lateral, longitudinal, and vertical placement criteria contained in Part 2 and other applicable Sections of this Manual.

Guidance:

The placement of warning signs should conform to the guidance contained in Section 2C.05 and other applicable Sections of this Manual.

Option:

A lateral offset of not less than 0.6 m (2 ft) from the roadway edge to the roadside edge of a sign may be used where roadside features such as terrain, shrubbery, and/or trees prevent lateral placement in accordance with Section 2A.19.

Standard:

If located within a clear zone, ground-mounted sign supports shall be yielding, breakaway, or shielded with a longitudinal barrier or crash cushion as required in Section 2A.19.